

ABSTRACT

METHOD AND DEVICE FOR INCREASING THE CAPACITY OF NON- SPREAD TRANSMISSION SYSTEMS

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A method for increasing the capacity of signal transmission systems comprising N_T users, a single-piece receiver receiving the mixture of signals
10 originating from the N_T users including at least the following steps :

- determining a qualitative information $\text{Info}(Q_s)$ of the symbols estimated for each of the N_T users,
- transmitting this information $\text{Info}(Q_s)$ to a processing block receiving an a priori information and designed to generate a quality information
15 $\text{Info}(Q_{bs})$ on the bits forming the symbols,
- transmitting the $\text{Info}(Q_{bs})$ to a decoding step to obtain a qualitative information on the encoded bits and $\text{Info}(Q_{bu})$ on the useful bits.

Figure 2